

A New Species of *Tegeocranellus* from a Marshy Ground with Native *Habenaria radiata*, Japan (Acari: Oribatei)

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Abstract A new species, *Tegeocranellus nubatamae* spec. nov. was collected from a marshy ground where *Habenaria radiata* Sprengel grows naturally at Imabari city in Shikoku.

Key words: *Habenaria radiata* Sprengel, marshy ground, New species, Shikoku, *Tegeocranellus*

Since a total of fifteen species of the genus *Tegeocranellus* Berlese, 1913 was reviewed by Behan-Pelletier in 1997, any member of this genus has never recorded from Japan yet.

A new species of *Tegeocranellus* was found at a small marshy ground in Shikoku. The spot is known as one of a few places where *Habenaria radiata* Sprengel grows naturally.

Tegeocranellus nubatamae spec. nov.

[Japanese name: Nubatamasasaradani]

(Figs. 1–3)

Measurements and color (n=3): Body length, 336 (348) 357 μ m; wide, 214 (224) 236 μ m. Dark brown. Body surface smooth and shiny.

Prodorsum: Prodorsum like round, but with slightly protruding tip according to depressed specimen. Lamellae thickened, covering lateral parts of prodorsum; long cuspides without dent, reaching beyond rostrum, slightly converging but well separated. Rostral (*ro*), lamellar (*le*) and interlamellar (*in*) setae short, dull at tips; setae *ro* minutely but sparsely barbed thorough its length; setae *le* sparsely roughened at the basal half, originating at the tip of lamellar cuspis; setae *in* densely barbed, shorter than half of setae *le*, originating on posterior surface of lamellae. Sensilli bearing short, thick barbs unilaterally or thoroughly, with long, thin stalk and fusiform or club-shaped head. Exobothridial setae reduced. Relative lengths, $ss > ro > le > in$.

Notogaster: Hemisphere in shape, with small humeral

protrudings, bearing minute setae (*c*) and lyrifissures (*ia*). Lenticulus semicircular in shape; notogastral depressions beside lenticulus absent. A total of twelve pairs of dorsal setae, different in length and form; setae *c* and *p*-series densely and minutely barbed, similar in length; other setae dull at tip, minutely sparsely roughened unilaterally; setae *h*₁ and *h*₂ slightly shorter than the rest except for *c* and *p*-series. Setae *cp* the longest, reaching to the insertions of *e*₂. Lyrifissures *ia* short aligned at the inside of setae *c*; *im* long, aligned antero-laterally to setae *e*₃; *ips* aligned parallel to lateral margin of notogaster; *ip* aligned longitudinally between setae *p*₁ and *p*₂.

Ventral region: Diarthric subcapitulum; infracapitulum setae, 1–1–1; setae smooth. Pedipalpal setae, 0–2–1–3–9[1]. Genital and anal apertures closely adjacent, almost equal in length. Genito-anal setae, 6–1–2–3; genito-anal setae short, smooth; genital setae inserted at the medial margin of plates; setae *ad*₁ postanal; setae *ad*₂ and *ad*₃ inserted at the level between *an*₁ and *an*₂, anterior to lyrifissures *iad*; *iad* very long, aligned paraanal, curving posteriorly. Pedotectum (Pd) I developed, trapezium; Pd II small triangular; Pd III rounded. Sternal depression (*st*) triangular. Epimeral setae, 2–1–2–3(4); epimeral setae smooth, variable in number and length; setae *3a*, *4a* and *4b* almost equal in length, longer than the rest; setae *4a* and *4b* inserted contiguously. Relative lengths of setae: $3a > m \doteq h > a > g \doteq 1b > ag \doteq ad > an$.

Legs: Tarsi monodactyl; claws smooth. Chaetotaxy including famulus, but excluding solenidia; I (1–5–2–4–18), II (1–5–2–4–15), III (2–3–1–3–15), IV (1–2–2–3–

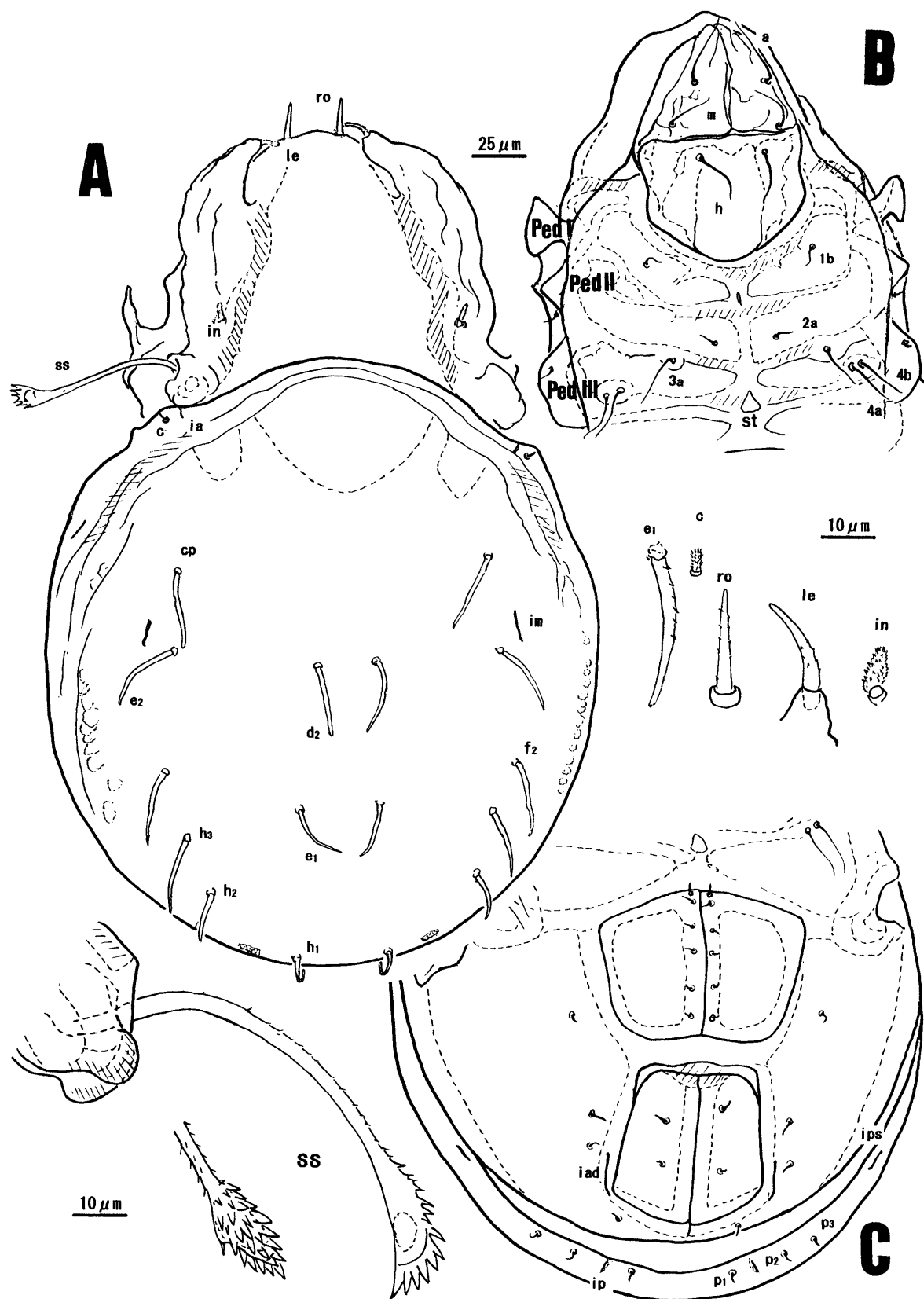


Fig. 1. *Tegeocranellus nubatamae* spec. nov. A. Dorsal view; B. Podosomal region; C. Genito-anal region. Setae- rostral seta (ro), lamellar seta (le), interlamellar seta (in), sensilli (ss) and dorsal setae (c and e.)

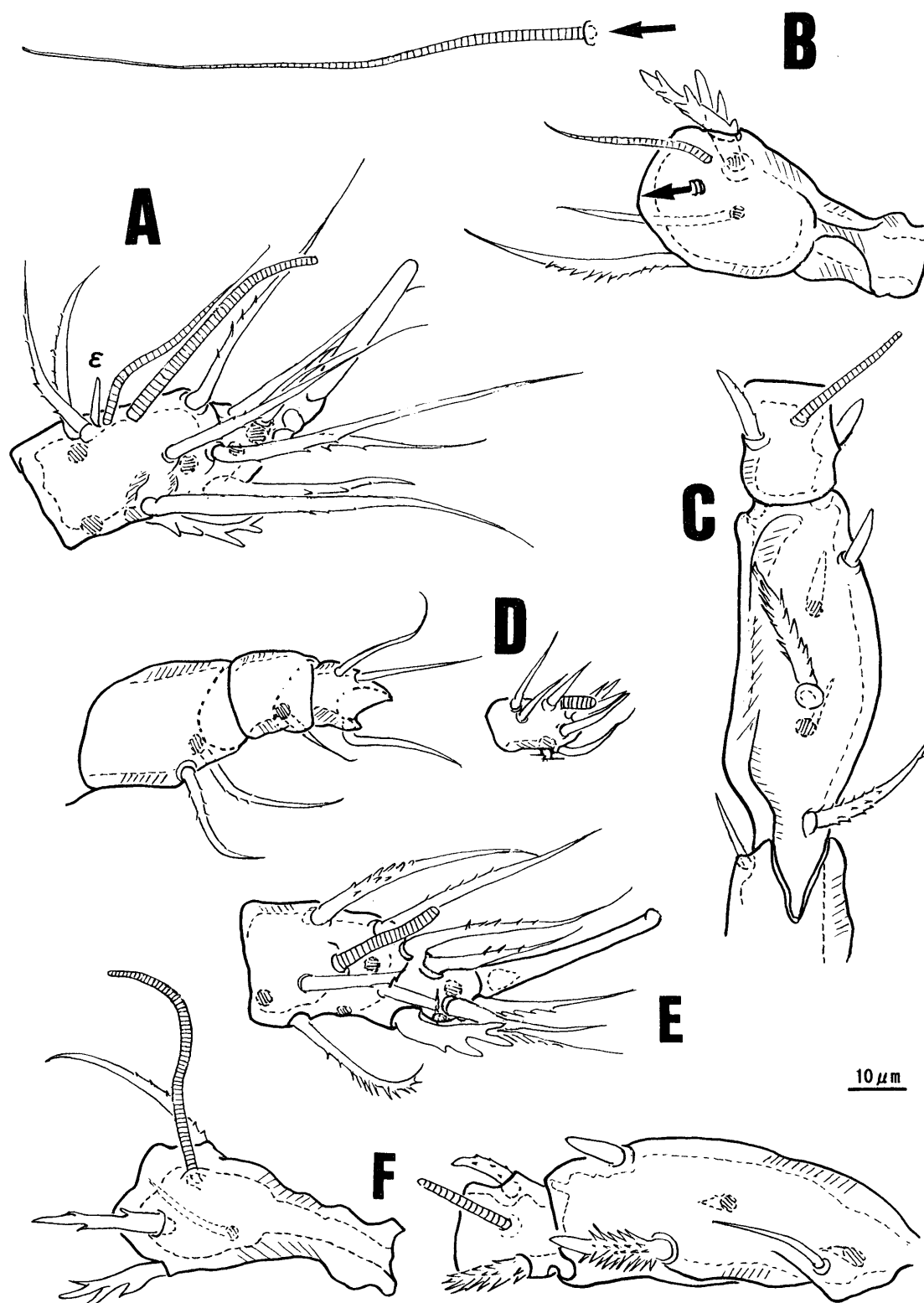


Fig. 2. *Tegeocranellus nubatamae* spec. nov. A. Tarsus I; B. Tibia I; C. Genu to trochanter of leg I; D. Pedipalpi; E. Tarsus II; F. Tibia to femur of leg II.

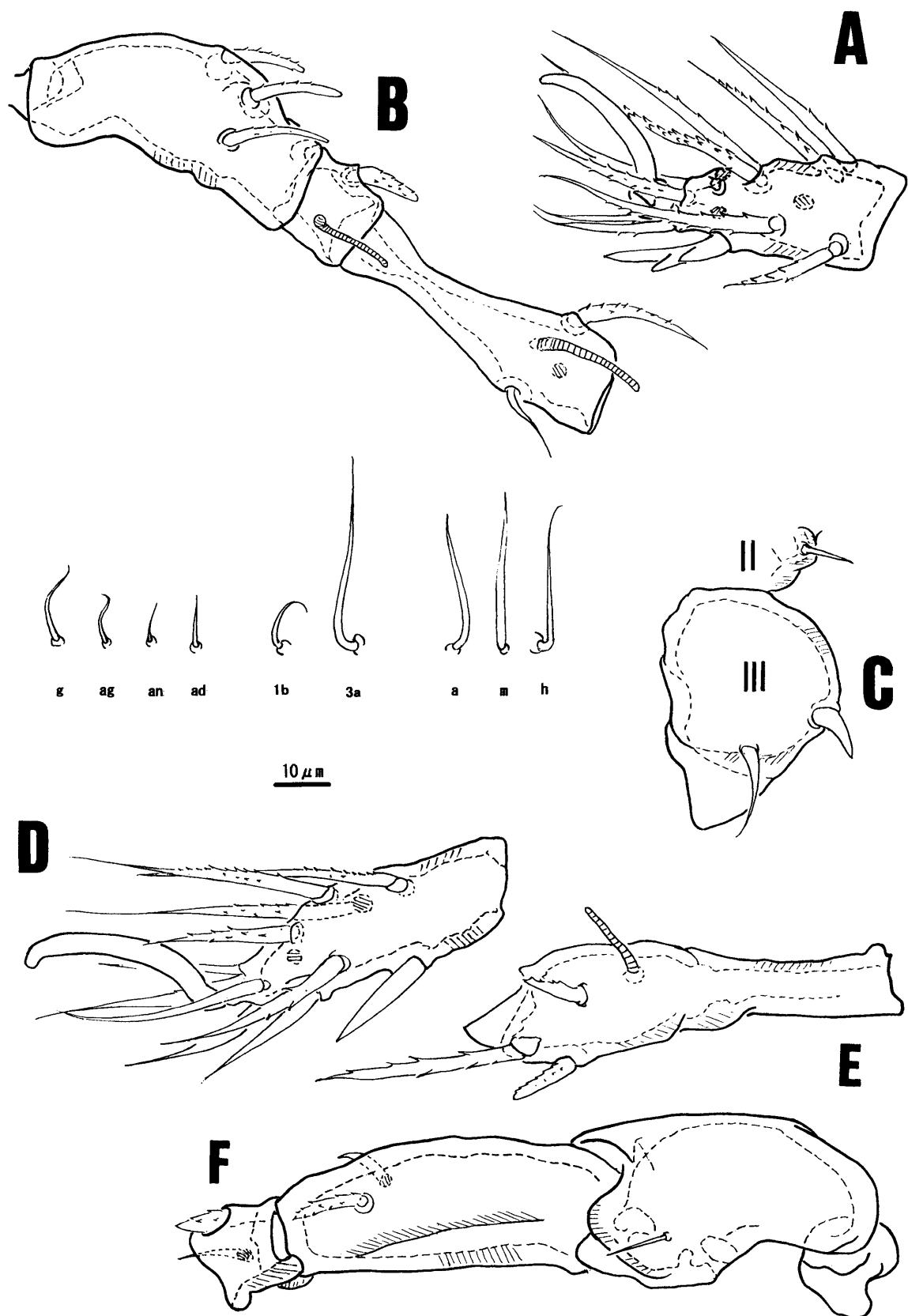


Fig. 3. *Tegeocranellus nubatamae* spec. nov. A. Tarsus III; B. Tibia to femur of leg III; C. Trochanters II and III; D. Tarsus IV; E. Tibia IV; F. Genu to trochanter of leg IV; Setae-genital (g), aggenital (ag), anal (an), adanal (ad), epimeral (1b and 3a) and infracapitular setae (a, m, h).

12). Solenidiotaxy; I (1-2-2), II (1-1-1), III (1-1-0), IV (0-1-0). On tarsi I, famulus ε inserted posterior to solenidion ω_2 ; ω_1 anterior to ω_2 ; ω_1 , ϕ_1 and δ bacilliform.

Material examined: Holotype (NSMT-Ac 11703): Jaike, Imabari-shi, Ehime Prefecture, September-6-2003, T. Fujikawa, from soil of a marshy ground where plants, native *Habenaria radiata* Sprengel grow (about 5,000 m²); 2 paratypes (NSMT-Ac 11704 & 11705): the same data with the holotype. The types are deposited in the National Science Museum, Tokyo.

Remarks: The following eight type specimens of the

genus were reexamined: 1 ex. of slide 30/3, 2 exs. of slide 30/4, 4 exs. of slide 30/5 and 1 ex. of slide 184/43 bearing the label "*Tegeocranus (Tegeocranellus) laevis*" in the Berlese Collection. The present new species differs from the type species (Fig. 4) by setae *le* originating at end of the lamellar cuspis, and absence of cavities and ridges posterolateral to lenticulus, and from any other congeners by form, length and location of prodorsal setae, dorsal setae and lyrifissures.

Etymology: After nubatama, the Japanese name for *Belamcanda chinensis* D. C. in ancient times (from the

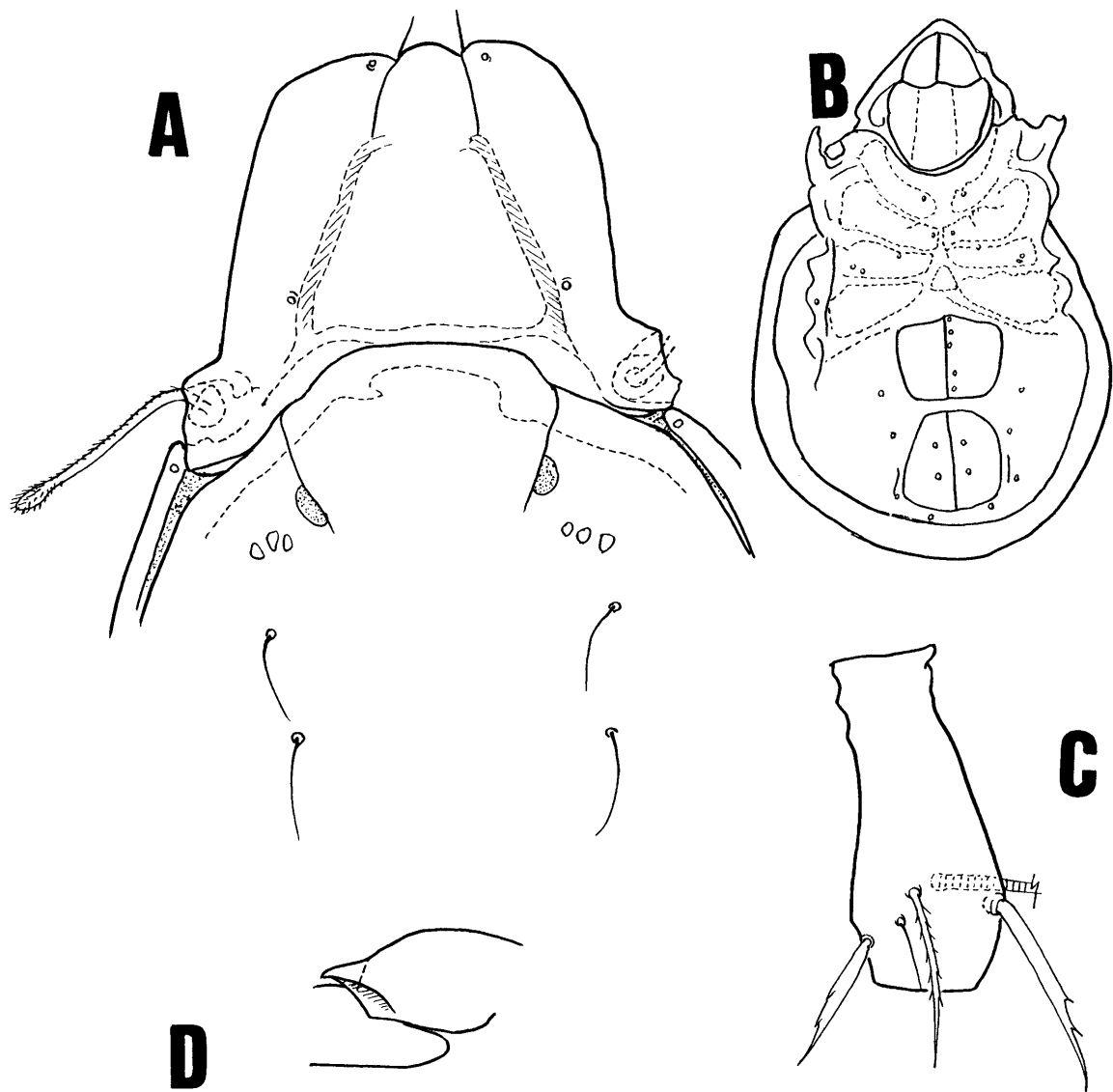


Fig. 4. Type specimens of *Tegeocranellus laevis* (Berlese, 1905) in the Berlese Collection; setae hardly visible. A. A part of dorsal view on Slide No. 30/4 ($\times 600$); B. Ventral view on Slide No. 30/5 ($\times 300$); C. Left tibia I on Slide No. 30/5 ($\times 1,500$); D. Right trochanter IV on Slide No. 30/5 ($\times 1,500$).

4th to the 8th centuries).

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摘 要

藤川徳子（〒791-0203 愛媛県重信町横河原 1375-115）：日本産ヌバタマダニ属の一新種。

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愛媛県今治市在のサギソウ自生地として知られる蛇池で採集したヌバタマダニ属（新称）の一新種 *Tegeocranellus nubatamae* spec. nov. ヌバタマササラダニ（新称）を記載した。名称の由来（山本章夫著，1979 年，恒和出版，‘萬葉古今動植正名’ p. 90）にある様に，沼から採集したこのササラダニは黒っぽく，まるく，そして艶々として見える。

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